CLAIMS

1. A method for transmitting data packets in a lossy environment, comprising:

transmitting a first data packet with a full header;

transmitting a second data packet with a compressed header, which compressed header includes differences based upon the full header of the first data packet; and

transmitting a third data packet with a compressed header, the compressed header of the third data packet including differences in the header of the third data packet as compared to the first data packet.

2. The method of claim 1 further including the step of transmitting a fourth data packet, the fourth data packet having a compressed header whose differences are based upon the first signals' full header.

3. A method for receiving and interpreting data packets, comprising receiving a first data packet having a full header;

receiving a second data packet having a compressed header whose differences are based upon the full header of the first packet; and

receiving a third data packet having a compressed header, which compressed header is based upon differences with the full header of the first data packet.

4. The method of claim 3, further including the step of receiving a fourth data packet having a compressed header based upon the full header of the first data packet.

5. The method of claim 3, further comprising the step of receiving a data packet with errors, and upon determining that the data packet has errors, discarding the data packet.

6. A system for transmitting data packets, comprising:

a memory for storing computer instructions that define compression logic, which compression logic causes compressed data packets to be formed with differences that are measured against a full and uncompressed data packet; and

a processor coupled to receive and execute the computer instructions stored within the memory to cause the system to operate in a manner defined by the logic of the computer instructions.

7. The system of claim 6, further including an internal bus coupled to the memory and to the processor to enable the processor to receive the computer instructions from the memory.

8. The system of claim 6 further including transceiver circuitry for transmitting data packets over a wireless interface.

9. A system for receiving compressed data packets, comprising transceiver circuitry for receiving the data packets, which data packets are transmitted over an air interface;

processing circuitry for reconstructing the data packets that are received in a compressed format, which compressed format includes packet header information whose differences are based upon a specified full and uncompressed packet header; and

audio processing circuitry for converting communication signals to sound signals to communication signals.

10. The receiver of claim 9, further including logic circuitry for determining whether a packet was received in a compressed or uncompressed format.

11. The receiver of claim 10, wherein the logic circuitry is formed to reconstruct a packet header based upon defined differences specified within the compressed header and a specified full header wherein the specified full header is used as a basis for each of a plurality of subsequently transmitted packets having compressed headers.

12. A plurality of communication signals, comprising a first communication signal transmitted in an uncompressed format having a full header;

a second communication signal having a compressed header, which compressed header specifies differences between its header in an uncompressed format and the full header of the first data packet; and

a third communication signal having a compressed header, which compressed header specifies differences between a full header for the third communication signal and the full header of the first communication signal.

13. The communication signals of claim 12, wherein the second and third communication signals further include uncompressed header information for those portions of a header that could not be compressed and for which differences with the full header of the first communication signal could not be specified.

14. The communication signals of claim 13, further comprising a byte for specifying whether the communication signal has a compressed or uncompressed header.

15. The communication signal of claim 13, further comprising at least one byte for identifying the Internet protocol version format that defines the signal layout.